1. (Amended) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(a) nucleic acid sequences encoding the amino acid sequence depicted in SEQ ID No. 9 or in SEQ ID No. 14;

(b) nucleic acid sequences depicted in SEQ ID No. 8 or SEQ ID No. 13;

(c) nucleic acid molecules encoding a protein, the amino acid sequence of which has a homology of at least 70% to the amino acid sequence of SEQ ID No. 9 or SEQ ID No. 14 ; and

(d) nucleic acid sequences deviating from the sequences mentioned in (c) on account of the degeneracy of the genetic code,

wherein the nucleic acid molecule encodes a protein, the reduction and/or inactivation of which in animals results in the elongation of the bones, with the exception of the skull bones.

2. (Amended) The isolated nucleic acid molecule according to claim 1, which is genomic DNA.

4. (Amended) The isolated nucleic acid molecule according to claim 1, which is an RNA molecule.

7. (Twice Amended) A host cell transformed by an isolated nucleic acid molecule according to any one of claims 1 to 4.

8. (Amended) A method for preparing a protein which is encoded by a nucleic acid molecule according to claim 1, wherein a host cell is cultured under conditions permitting the expression of the protein and the protein is recovered from the cells and/or the culture medium.

12. (Twice Amended) A diagnostic composition containing a nucleic acid molecule according to any one of claims 1 to 4.

13. (Twice Amended) A pharmaceutical composition containing a nucleic acid molecule according to any one of claims 1 to 4 and optionally a pharmaceutically acceptable carrier.

Please add the following new claims:

29. (New) The method according to claim 8, wherein the host cell is transformed by an isolated nucleic acid molecule selected from the group consisting of cDNA, genomic DNA and RNA.

30. (New) A diagnostic composition comprising a protein according to claim 9.

31. (New) A diagnostic composition comprising an antibody according to claim 10.

32. (New) A diagnostic composition comprising a nucleic acid molecule according to claim 11.

33. (New) A pharmaceutical composition comprising a protein according to claim 9 and optionally a pharmaceutically acceptable carrier.

34. (New) A pharmaceutical composition comprising an antibody according to claim 10 and optionally a pharmaceutically acceptable carrier.

35. (New) A pharmaceutical composition comprising a nucleic acid molecule according to claim 11 and optionally a pharmaceutically acceptable carrier.

36. (New) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(a) nucleic acid sequences encoding the amino acid sequence depicted in SEQ ID No. 9;

(b) nucleic acid sequences depicted in SEQ ID No. 8;

(c) nucleic acid molecules encoding a protein, the amino acid sequence of which has a homology of at least 70% to the amino acid sequence of SEQ ID No.9; and

(d) nucleic acid sequences deviating from the sequences mentioned in (c) on account of the degeneracy of the genetic code,

wherein the nucleic acid molecule encodes a protein, the reduction and/or inactivation of which in animals results in the elongation of the bones, with the exception of the skull bones.

37. (New) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(a) nucleic acid sequences encoding the amino acid sequence depicted in SEQ ID No. 9 or in SEQ ID No. 14;

(b) nucleic acid sequences depicted in SEQ ID No. 8 or SEQ ID No. 13;

(c) nucleic acid molecules encoding a protein, the amino acid sequence of which has a homology of at least 80% to the amino acid sequence of SEQ ID No. 9 or SEQ ID No. 14 ; and

(d) nucleic acid sequences deviating from the sequences mentioned in (c) on account of the degeneracy of the genetic code,

wherein the nucleic acid molecule encodes a protein, the reduction and/or inactivation of which in animals results in the elongation of the bones, with the exception of the skull bones.

38. (New) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(a) nucleic acid sequences encoding the amino acid sequence depicted in SEQ ID No. 9 or in SEQ ID No. 14;

(b) nucleic acid sequences depicted in SEQ ID No. 8 or SEQ ID No. 13;

(c) nucleic acid molecules encoding a protein, the amino acid sequence of which has a homology of at least 90% to the amino acid sequence of SEQ ID No. 9 or SEQ ID No. 14 ; and

(d) nucleic acid sequences deviating from the sequences mentioned in (c) on account of the degeneracy of the genetic code,

wherein the nucleic acid molecule encodes a protein, the reduction and/or inactivation of which in animals results in the elongation of the bones, with the exception of the skull bones.

39. (New) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(a) nucleic acid sequences encoding the amino acid sequence depicted in SEQ ID No. 9 or in SEQ ID No. 14;

(b) nucleic acid sequences depicted in SEQ ID No. 8 or SEQ ID No. 13;

(c) nucleic acid molecules encoding a protein, the amino acid sequence of which has a homology of at least 95% to the amino acid sequence of SEQ ID No. 9 or SEQ ID No. 14 ; and

(d) nucleic acid sequences deviating from the sequences mentioned in (c) on account of the degeneracy of the genetic code,

wherein the nucleic acid molecule encodes a protein, the reduction and/or inactivation of which in animals results in the elongation of the bones, with the exception of the skull bones.

40. (New) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(a) nucleic acid sequences encoding the amino acid sequence depicted in SEQ ID No. 9 or in SEQ ID No. 14;

(b) nucleic acid sequences depicted in SEQ ID No. 8 or SEQ ID No. 13;

(c) nucleic acid molecules encoding a protein, the amino acid sequence of which has a homology of at least 97% to the amino acid sequence of SEQ ID No. 9 or SEQ ID No. 14 ; and

(d) nucleic acid sequences deviating from the sequences mentioned in (c) on account of the degeneracy of the genetic code,

wherein the nucleic acid molecule encodes a protein, the reduction and/or inactivation of which in animals results in the elongation of the bones, with the exception of the skull bones.

41. (New) An isolated nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of:

(a) nucleic acid sequences encoding the amino acid sequence depicted in SEQ ID No. 9 or in SEQ ID No. 14;

(b) nucleic acid sequences depicted in SEQ ID No. 8 or SEQ ID No. 13;

(c) nucleic acid sequences, the complementary sequence of which hybridizes to the sequences mentioned in (a) or (b) under stringent conditions; and

(d) nucleic acid sequences deviating from the sequences mentioned in (c) on account of the degeneracy of the genetic code,

wherein the nucleic acid molecule encodes a protein, the reduction and/or inactivation of which in animals results in the elongation of the bones, with the exception of the skull bones.

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REMARKS

1. Restriction Requirement

The Examiner has acknowledged Applicant's election with traverse of Group I, directed to the murine LOBO. The Examiner has rejected Applicant's request that the claims of Groups I and II should be rejoined and has maintained the full scope of the restriction requirement. Applicant maintains that the restriction requirement is improper and should be withdrawn. The Examiner states that Applicant's argument that SEQ ID NO: 8 and SEQ ID NO: 13 encode the same protein and Groups I and II should, therefore, be rejoined was unpersuasive because the Specification demonstrates that murine and human LOBO are not the same protein. The Examiner also stated that the sequences encoding human LOBO do not appear to meet the functional limitation of claim 1, that reduction or inactivation of the protein results in long bones.